

# CATALOGUE

OF THE

STATE

Agricultural and Mechanical College,

AUBURN,

LEE COUNTY, ALABAMA.



MONTGOMERY, ALA. :

BARRETT & BROWN, STEAM PRINTERS AND BOOK-BINDERS.

1874.

## BOARD OF DIRECTORS.

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HON. WM. H. BARNES, PRESIDENT,

HIS EXCELLENCY THE GOVERNOR OF ALABAMA, *ex-officio*,

THE SUPERINTENDENT OF PUBLIC INSTRUCTION, *ex-officio*,

THE PRESIDENT OF THE STATE AGRICULTURAL SOCIETY, *ex-officio*,

HON. C. C. LANGDON,

HON. M. L. STANSEL,

T. D. OSBORNE, Esq.,

J. N. MALONE, Esq.,

J. B. SCOTT, Esq.,

W. C. DOWDELL, Esq..

E. T. GLENN, - - - - TREASURER,

F. M. REESE, - - - - SECRETARY,

# FACULTY AND OFFICERS

1874-75.

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REV. I. T. TICHENOR, D. D.,

*President and Professor of Agriculture.*

R. A. HARDAWAY, C. E., A. M.,

*Commandant and Professor of Civil Engineering.*

ALEXANDER HOGG, A. M.,

*Professor of Mathematics.*

J. T. DUNKLIN, A. M.,

*Professor of Languages.*

WM. C. STUBBS, A. M.,

*Professor of Natural Science.*

OTIS D. SMITH, A. M.,

*Professor of English.*

REV. B. B. ROSS,

*Professor of Moral Philosophy.*

J. H. DRAKE, M. D.,

*Surgeon.*

E. T. GLENN,

*Quartermaster.*

WM. C. STUBBS, A. M.,

*Secretary of Faculty.*

# MILITARY ORGANIZATION.

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*Commandant:*  
COL. R. A. HARDAWAY.

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## CADET OFFICERS.

*Adjutant:*  
E. R. RIVERS.

*Sergeant-Major:*  
JOHN R. FIGH.

*Quartermaster Sergeant:*  
F. D. PEABODY.

*Color Bearer:*  
F. C. DILLARD.

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### COMPANRY A.

*Captain:*  
B. HUGER JOHNSON.

*First Lieutenant:*  
W. H. MOORE.

*Second Lieutenant:*  
W. M. PERRY.

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### COMPANY B.

*Captain:*  
M. H. MOORE.

*First Lieutenant:*  
R. K. FITZHUGH.

*Second Lieutenant:*  
P. H. STOW.



# CATALOGUE OF STUDENTS.

(BY CLASSES AND COURSES.)

| <i>Names.</i>         | <b>FIFTH CLASS.</b> | <i>Residences.</i>  |
|-----------------------|---------------------|---------------------|
| ALLEN, HERSCHEL V. B. | .....               | Newton Co., Ga.     |
| BARNETT, JAMES F.     | .....               | Auburn, Ala.        |
| BELL, WILLIAM H.      | .....               | Hayneville, Ala.    |
| BINGHAM, JULIAN H.    | .....               | Montgomery, Ala.    |
| CASTLEBERRY, DAVID.   | .....               | Ashland, Ala.       |
| DOWNING, WILLIAM B.   | .....               | Reed's Landing, La. |
| DILLARD, F. BARTOW    | .....               | Auburn, Ala.        |
| DAVIS, BENJAMIN F.    | .....               | Autaugaville, Ala.  |
| DAVIS, WALTER G.      | .....               | " "                 |
| DILLARD, ALBIN.       | .....               | Auburn, Ala.        |
| DOWDELL, SILAS C.     | .....               | " "                 |
| FRAZER, PRESTON B.    | .....               | " "                 |
| FRAZER, TUCKER H.     | .....               | " "                 |
| GLENN, JAMES W.       | .....               | " "                 |
| GLENN, WALTER R.      | .....               | " "                 |
| GUYER, F. A.          | .....               | Morgan Co., Ala.    |
| GULLATT, WILLIAM B.   | .....               | Gold Hill, Ala.     |
| GORMAN, JOHN T.       | .....               | Loachapoka, Ala.    |
| HARDIN, ADAM S.       | .....               | Auburn, Ala.        |
| HARVEY, A. REESE.     | .....               | " "                 |
| HARRIS, WILLIAM H.    | .....               | St. Stephens, Ala.  |
| HEARD, JOHN A.        | .....               | Raymond, Miss.      |
| HOLT, LEROY L.        | .....               | Siluria, Ala.       |
| HUBBARD, JOHN R., JR. | .....               | Opelika, Ala.       |
| HURT, J. MARSHALL.    | .....               | Auburn, Ala.        |
| HOWELL, WILLIAM H.    | .....               | Prattville, Ala.    |
| HOLLY, GREEN D.       | .....               | Dadeville, Ala.     |
| INGRAM, BENJAMIN F.   | .....               | Society Hill, Ala.  |
| JETER, OSCAR T.       | .....               | Opelika, Ala.       |
| KING, JAMES P.        | .....               | Rockford, Ala.      |
| LAMAR, J. OLIVER      | .....               | Auburn, Ala.        |
| LANIER, JOHN F.       | .....               | Huntsville, Ala.    |
| LANIER, I. ALEXANDER. | .....               | " "                 |
| LONG, BENJAMIN H.     | .....               | Greenville, Ala.    |
| McLAURINE, LEWIS P.   | .....               | Bruceville, Ala.    |
| MOORE, JOSHUA O.      | .....               | Loachapoka, Ala.    |
| PERRY, H. GAITHER.    | .....               | Auburn, Ala.        |

# ALABAMA AGRICULTURAL AND MECHANICAL COLLEGE.

|                          |                       |
|--------------------------|-----------------------|
| PINCKARD, J. OSCAR.....  | Roanoke, Ala.         |
| PINCKARD, F. REX.....    | “ “                   |
| RILEY, WILLIAM T.....    | Mobile, Ala.          |
| RIVERS, CHARLES E.....   | Spring Hill, Ala.     |
| RIDDLE, J. CRAWFORD..... | New Orleans, La.      |
| RUSHTON, M. GRAHAM.....  | Montgomery Co., Ala.  |
| SAWYER, JOHN D.....      | Burnt Corn, Ala.      |
| SMITH, JOHN W.....       | Auburn, Ala.          |
| SIMPSON, ABNER M.....    | Madison Co., Ala.     |
| SCHIEFFELIN, MARK A..... | Mobile, Ala.          |
| SCHIEFFELIN, LEE S.....  | Mobile, Ala.          |
| STAGGERS, ROBERT J.....  | Benton, Ala.          |
| STROUD, JAMES K.....     | Smith's Station, Ala. |
| VINSON, CHARLES R.....   | Suspension, Ala.      |
| YOUNG, EDWARD C.....     | Wetumpka, Ala.        |
| ZELLARS, JOHN T.....     | Auburn, Ala.          |

## FOURTH CLASS.

|                            |                    |
|----------------------------|--------------------|
| BUCHANNAN, ABNER M.....    | Society Hill, Ala. |
| CLAPP, SEWELL F.....       | Columbus, Ga.      |
| CLAPP, GEORGE M.....       | “ “                |
| COX, A. CLIFFORD.....      | Montgomery, Ala.   |
| DENSON, NIMROD D.....      | Lafayette, Ala.    |
| FLOYD, JAMES M.....        | Opelika, Ala.      |
| FLEMING, WILLIAM S.....    | Wetumpka, Ala.     |
| GANN, WILLIAM F.....       | Opelika, Ala.      |
| GANN, THOMAS J.....        | “ “                |
| HENDERSON, ORION H.....    | Auburn, Ala.       |
| HODGE, COLONEL T.....      | Opelika, Ala.      |
| HOLT, SAMUEL B.....        | Siluria, Ala.      |
| HURT, JAMES A.....         | Hurtville, Ala.    |
| JETER, JOSEPH H.....       | Opelika, Ala.      |
| JONES, MOSES G.....        | Crawford, Ala.     |
| JONES, CHARLES P.....      | Yongesboro, Ala.   |
| LANIER, B. CLINTON.....    | Huntsville, Ala.   |
| MOORE, ORREN D.....        | Auburn, Ala.       |
| OLIVER, ERNEST M.....      | Dadeville, Ala.    |
| PEABODY, F. DOWNING.....   | Columbus, Ga.      |
| PERRY, JOHN B.....         | Auburn, Ala.       |
| PHILLIPS, CHARLES.....     | Loachapoka, Ala.   |
| RUFFIN, JAMES E.....       | Rockford, Ala.     |
| RIDDLE, SAMUEL C.....      | New Orleans, La.   |
| RUTLEDGE, JOHN F.....      | Auburn, Ala.       |
| SCHUESSLER, CALHOUN S..... | Montgomery, Ala.   |
| SMYTH, WILLIAM A.....      | Greenville, Ala.   |
| SPIGENER, LEWELLYN.....    | Prattville, Ala.   |
| SMITH, WILLIAM P.....      | Auburn, Ala.       |

# ALABAMA AGRICULTURAL AND MECHANICAL COLLEGE.

|                          |                  |
|--------------------------|------------------|
| SLATON, T. FRANK.....    | Prattville, Ala. |
| THACH, CHARLES C.....    | Athens, Ala.     |
| TRAMMELL, JOHN M.....    | Lafayette, Ala.  |
| TRAMMELL, WILLIAM O..... | " "              |
| WILSON, REESE.....       | Salem, Ala.      |

## THIRD CLASS.

|                          |                     |
|--------------------------|---------------------|
| BROCK, WILLIAM L.....    | Lafayette, Ala.     |
| CLEMENTS, MERRITT K..... | Bluff Springs, Ala. |
| DILLARD, GEORGE E.....   | Auburn, Ala.        |
| DOWDELL, JAMES S.....    | " "                 |
| DRAKE, VOLNEY M.....     | " "                 |
| DRAKE, ARCHELAUS H.....  | Thomaston, Ga.      |
| DAVIS, THOMAS F.....     | Autaugaville, Ala.  |
| FIGH, JOHN R.....        | Montgomery, Ala.    |
| PERSONS, FRANK S.....    | Auburn, Ala.        |
| PERRY, WILLIAM M.....    | Columbus, Ga.       |
| ROSS, WILEY W.....       | Opelika, Ala.       |
| STOW, PERKINS H.....     | " "                 |
| WAGNER, EFF.....         | Siluria, Ala.       |

## SECOND CLASS.

|                         |                      |
|-------------------------|----------------------|
| DILLARD, FRANK C.....   | Auburn, Ala.         |
| FITZHUGH, RUFUS K.....  | Augusta, Ark.        |
| RATCHFORD, JOHN A.....  | Lafayette, Ala.      |
| RIVERS, EUGENE R.....   | Glennville, Ala.     |
| WALKER, BENJAMIN H..... | Tallapoosa Co., Ala. |

## FIRST CLASS.

|                        |                 |
|------------------------|-----------------|
| JOHNSON, B. HUGER..... | Dadeville, Ala. |
| MOORE, MARION H.....   | Opelika, Ala.   |
| MOORE, WALTER H.....   | Auburn, Ala.    |

## RECAPITULATION.

|                   |     |
|-------------------|-----|
| FIFTH CLASS.....  | 53  |
| FOURTH CLASS..... | 34  |
| THIRD CLASS.....  | 13  |
| SECOND CLASS..... | 5   |
| FIRST CLASS.....  | 3   |
| TOTAL.....        | 108 |

## TERMS OF ADMISSION.

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*Candidates for Admission* to the Fourth or lowest class of the College course must be fifteen years of age and pass a creditable examination in the following subjects:

Geography.

English Grammar, including spelling.

Arithmetic, as treated in the higher text books.

Algebra, to Equations of the Second Degree.

Geometry, first book of Legendre.

### ADDITIONAL FOR THE COURSE IN LITERATURE.

*Latin*.—Grammar, (Allen & Greenough.)

Lessons, (Leighton) Cæsar, 2 books.

Allen's Selections.

*Greek*.—Goodwin's Grammar and Leighton's Lessons.

N. B.—There is a great want of preparation in the *elementary branches*, and applicants must hereafter expect to undergo a thorough examination in those subjects. They must be prepared to solve readily practical questions involving Fractions, Common and Decimal, Denominate Numbers, Percentage and Square Root as usually found in our higher School Arithmetics; to parse and analyse selections from standard English authors, and correct false syntax. They must also have a general knowledge of Geography, especially of the United States.

Students desiring to enter the course in Letters should have a good knowledge of Latin and Greek Grammar.

*Special Courses*.—Students not candidates for degrees are received in particular departments, if they have received the

requisite preparation for the study of the subjects selected.

For advanced standing a corresponding increase of age and completion of studies to that point in the course will be required.

Satisfactory testimonials of good moral character are in all cases required; and those who are admitted from other colleges must present certificates of dismissal showing good standing.

Applicants on arrival in Auburn must report themselves immediately to the President of the College.

The proper time—that is, the *best* time—for entering the classes is at the beginning of the scholastic year. Students are admitted, however, at the beginning of each term, or at any other time in the year; but if not fully prepared in the previous work of the class, they are then obliged to make up their deficiencies by *extra efforts* during the term.

#### PRIVILEGED STUDENTS.

The sons of ministers of the gospel in active service, and young men preparing for the ministry, are admitted to all the privileges of the College *free of tuition*.

#### STATE STUDENTS.

To render scientific education accessible to meritorious young men of limited means, provision has been made by the legislature for the admission of *two students* from each county without the payment of *tuition fees*.

These students are nominated by the county superintendent, received into the College by the Faculty, and their appointments are approved by the Board of Directors. County superintendents are earnestly requested to fill existing vacancies.

## ESTABLISHMENT OF THE COLLEGE.

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THE AGRICULTURAL AND MECHANICAL COLLEGE OF ALABAMA is both state and national in its origin.

After long discussions Congress passed the necessary law in July, 1862, making the magnificent grant of public lands out of which has arisen that long list of Agricultural Colleges and Industrial Universities now scattered over the continent. Alabama accepted, on December 31, 1868, her portion of the United States scrip or lands granted by Congress, amounting to two hundred and forty thousand acres. Her legislature, by act approved February 26, 1872, accepted also the proposition made by the Trustees of the East Alabama College; said Trustees donating the buildings, property, and lands, to the State, upon condition that the legislature locate the Agricultural and Mechanical College at Auburn, in Lee county. On the 20th of March following the Board of Directors met at Auburn in the College building, adopted a course of study for the students, elected a faculty of instruction, and passed laws and regulations for the government of the college.

## OBJECTS OF THE COLLEGE.

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"Its leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life. (*Act of Congress, 1862, sec. 4.*)

"That there be and hereby is established at Auburn, in Lee county, Alabama, a college for the benefit of agriculture and



the mechanic arts, whose leading object shall be, without excluding other *scientific* and *classical* studies, and including military tactics, to teach such branches of learning as relate to agriculture and the mechanic arts, in conformity to an act of the Congress of the United States, entitled an act donating public lands to the several states and territories, approved July 2, 1862." (*Act No. 65 of General Assembly of Alabama, approved Feb. 26. 1872.*)

In accordance with the two acts above quoted, and under which this College was organized, it holds as its leading object to afford the most thorough instruction which its means will allow in the branches of learning pertaining to the *industrial* arts, or necessary to "the *liberal* and *practical* education of the industrial classes in the several pursuits or professions of life." Its objects and purposes will be best understood by a general survey or brief synopsis of its course of instruction.

## ORDER OF COURSES.

The College offers the following courses as allowing large freedom of choice, and at the same time indicating a specific degree to be attained in each. These courses are substantially those of the best schools which propose to impart both scientific and literary education, and agree mainly with those of Michigan, Wisconsin, and Missouri. Each, except the agricultural, requires four years for its accomplishment. The agricultural not embracing so much in languages as the literary course or so much mathematics as the scientific course, is adjusted to three years. It will be seen on examination that the prominence given to the Natural Sciences, and the practical element associated with all departments of study can not fail to render the courses especially valuable. Under Agricultural Chemistry will be considered composition of soils, relations of air and moisture to vegetable growth, food of plants, chemical changes during vegetable growth, chemistry



of farm processes, methods of improving soils, and various other topics which may be properly treated of under this department. Botany, chemical physics and other departments of science will be studied and taught with special reference to their relation to Agriculture and Horticulture.

Agricultural experiments will be carried on in connection with the college farm and garden to such an extent as may be necessary for the requirements of instruction, and the means at command.

As soon as it can be done, small grain and other crops will be experimented upon on a limited scale, with and without the various fertilizers; and forage crops will be fully tested, some few grasses, clover, saintfoin, &c., being already on trial. The partial course in Agriculture requiring two years, is intended to meet the wants of a very large number of the industrial classes for whose special benefit the act of Congress was framed.

I. *The Course in Agriculture*, leading to the degree of Bachelor of Agriculture. This course embraces French, German, Natural Science as related to Agriculture, particularly Botany and Chemistry, Mathematics, with surveying and leveling, political and moral philosophy; lessons in practical agriculture throughout the course.

II. *Course in Literature*—degree Bachelor of Letters. This course embraces Latin, Greek, Modern Languages; a thorough study of English in its linguistic elements and in its literature; philosophic and historical studies, together with the elements of mathematics and natural science; but not to the same extent as required in the courses of Science or Engineering. This course is approximately the same as the usual course in Arts, but is extended in the department of science and in the study of the English language.

III. *Course in Science*, leading to the degree of B. S. This course is designed for those who wish to study the Natural Sciences, Mathematics, Modern Languages and Literature, History, Rhetoric, Logic, and Mental and Moral Philosophy, as thoroughly as they are studied in the best Colleges, and

who would be glad to enjoy the cultivation and association of college life, but who will not study Latin and Greek. French and German are substituted for the ancient classics, the course in Mathematics and Natural Science is extended. A full course of Chemistry and Mechanics is included, and those desiring to follow any business in life requiring thorough knowledge of Mechanics or Chemistry, and who do not propose a connection with Engineering, would properly select the general Scientific Course. Those who have taken the usual classical course by taking the Course in Science, would be qualified as teachers for any department of education furnished by the normal school.

IV. *Course in Civil Engineering*—degree Bachelor of Engineering. This course extends the scientific course in applied mathematics; embraces full instruction in regard to the construction of common roads, pikes, railroads, bridges, canals, improvements of rivers, harbors, &c.

Instruction in Surveying is of the most practical character, embracing every variety of field work, with actual use of instruments.

## ROAD ENGINEERING.

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The Senior Class of the Engineering Course is organized as an Engineering Corps, and goes through all the necessary operations for the construction of a railroad from Auburn to some selected terminus.

- Preliminary Study of Maps,
- Reconnoissance.
- Running Preliminary lines.
- Maps and Memoirs of same.
- Final Location of Road; Grades and Curves.
- Final Maps, showing Longitudinal and Cross Sections, Excavations, &c.

The Field Work and Office Work, including Drafting and Calculation, are performed under the direction of the Professor. Each step is accompanied by text-book study and lectures. Examinations are made of Engineering works in the vicinity, and written reports upon them (with drafts) are required. Both theory and practice are thoroughly taught.

The work in this Course begins this year with the first collegiate term, October, 1874.

## BUILDING AND AGRICULTURE.

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Students desiring a partial course may omit a part of the higher Mathematics, Chemistry, and study of languages. The course would consist of Architectural Drawing, equilibrium and stability of structures, arches, trusses, roofs, building materials, mortars, &c.

Upon completion of the course, a certificate of proficiency will be given.

## POST GRADUATE COURSE AND DEGREES.

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Students who remain one year after graduation in Agriculture, Letters, or Science, shall, on recommendation of the Faculty, be entitled to the degree of Master. And the completion of the post graduate course of one year will entitle the graduate of Engineering to the degree of Civil Engineer.

Certificates of proficiency may be given a student upon completion of any department of a course.

All degrees must be conferred upon recommendation of the Faculty, approved by the Board of Directors.

Bad character or College delinquency of any kind shall be

good reason for exclusion from a degree. No student will be allowed to receive any certificate of proficiency or degree, until he shall have prepared and submitted to the Faculty a *Thesis* on some subject of immediate relation to the studies of his course. It may be necessary to read and defend this thesis before the class, or to read or deliver it upon commencement day.

Students in the First, Second and Third Classes are required to write an Essay each month. The First and Second Classes write and deliver three Orations each year.

## COURSE IN AGRICULTURE, FOR THREE YEARS.

### CLASS FOURTH—FIRST YEAR.

- \*MATHEMATICS. . . . . *First Term.*—Geometrical Concepts; the Point, the Line, and Plane Surfaces; Algebra, Involution, Logarithms, and use of Tables.  
*Second Term.*—Plane Trigonometry.
- \*ENGLISH LANGUAGE. *First Term.*—Composition; Reading Prose and Poetry; History.  
*Second Term.*—The same subjects continued; Analysis of Words and Sentences.
- †NATURAL SCIENCE. . . *First Term.*—Physics.  
*Second Term.*—Elementary Chemistry; Botany.
- †AGRICULTURE. . . . . Elements of Practical Agriculture; Uses of Agricultural Implements.
- †DRAWING. . . . . *First Term.*—Warren's Drafting Instruments and Operations.
- †LANGUAGE. . . . . *First and Second Terms.*—French.
- \*MILITARY. . . . . *First and Second Terms.*—Drill.

### CLASS THIRD—HALF YEAR.

- †MATHEMATICS. . . . . *First Term.*—Geometry of Solids, bounded by right lines, Spherical Surfaces; Spherical Projections; Spherical Trigonometry.
- †ENGLISH LANGUAGE. *First Term.* Study of English as a Language—Origin and History; Exercises in Original Composition and Declamation; Rhetoric.
- †LANGUAGE. . . . . *First Term.*—German.
- \*CHEMISTRY. . . . . *First Term.* Lectures and Recitations.
- †NATURAL HISTORY. . . *First Term.*—Zoology; Habits of Animals; Human and Comparative Anatomy; Physiology and Hygiene.
- †AGRICULTURE. . . . . *First Term.*—Lectures and Excursions.
- †GEODESY. . . . . *First and Second Terms.*—Farm Surveying; Practice, Plane Table Surveying; Theory and Practice; Use of Field Instruments.
- †LANGUAGE. . . . . *First and Second Terms.*—German.
- †TOPOGRAPHICAL DRAWING.—Maps of Farms.
- \*MILITARY, . . . . . *First and Second Terms.*—Drill and Tactics.

\* Five recitations per week.

† Three recitations per week.

‡ Two recitations per week.

CLASS SECOND—HALF YEAR.

- †AGRICULTURE.....1. Its Principles; its Development and Present Condition as an Art; its Connection with the several Branches of Science; the Economic Requisites of Vegetable Growth, including Soils and the Theory of Manures.  
2. Its Processes; Tillage, Plowing; the Physical Manipulations of the Land; Implements and Machinery; Farm-buildings, their Construction and Arrangement.  
3. Its Products; the Cereals, their Cultivation, their Management, and Uses; Root Crops and Legumes; Grasses, and care of Pasture-lands; Rotation of Crops, and the use of Artificial Fertilizers.
- †ENGLISH.....*Second Term.*—As in Literature.
- \*MECHANICS.....*Second Term.*—Mechanics of Chemistry.
- BOOK-KEEPING.....*Second Term.*—With special reference to Farm Accounts; the Law of Titles, Contracts, and Accounts, (Lectures).
- †PHILOSOPHY.....*Second Term.*—Logic.
- EXCURSIONS.....*Second Term.*—Agricultural, Botanical, Geological; Engineering.
- †LANGUAGE.....*Second Term.*—German.
- \*MILITARY.....*Second Term.*—Tactics and Drill (Upton).

CLASS FIRST—THIRD YEAR.

- †ASTRONOMY.....*First Term.*—Descriptive.
- \*PHILOSOPHY.....*First Term.*—Mental Philosophy; Evidence of Christianity.  
*Second Term.*—Political Economy; Moral Philosophy.
- †NATURAL HISTORY...*First Term.*—Mineralogy; Lithology; Zoology; History of Domestic Animals; the Care, Breeding, and Raising of Domestic Animals, their Diseases and Treatment; Entomology; Insects useful and injurious to Vegetables.
- †AGRICULTURE.....*Second Term.*—The Staple Crops of the United States; their Varieties, Cultivation, Management, and Preparation for Market; Orchard Culture, Raising of Fruits and Vines.
- \*ENGLISH.....Same as Course in Literature.
- EXCURSIONS.....*First and Second Terms.*—Agricultural, Botanical, Geological; Engineering.
- \*MILITARY.....*First and Second Terms.*—Tactics and Drill, Artillery and Infantry.

\* Five recitations per week.

† Three recitations per week.

‡ Two recitations per week.



## COURSE IN LITERATURE, FOR FOUR YEARS.

### CLASS FOURTH.

- \***MATHEMATICS**..... *First Term*.—Geometrical Concepts; the Point, the Line, and Plane Surfaces; Algebra, Involution, Logarithms, and use of Tables.  
*Second Term*.—Plane Trigonometry.
- \***ENGLISH LANGUAGE**. *First Term*.—Composition; Reading Prose and Poetry; History.  
*Second Term*.—The same subject continued; Analysis of Words and Sentences.
- †**NATURAL SCIENCE**.... *First and Second Terms*.—Inorganic; Chemical Symbols; Physics.
- †**DRAWING**..... *First Term*.—Warren's Drafting Instruments and Operations.
- \***MILITARY**..... *First and Second Terms*.—Drill.
- \***LATIN LANGUAGE**.... *First Term*.—Virgil (four books of the *Æneid*), with Exercises and Grammar.  
*Second Term*.—The same continued; Cicero's Orations.
- †**GREEK LANGUAGE**.... *First Term*.—Two Books of Anabasis, with Goodwin's Greek Grammar.  
*Second Term*.—The same continued; Goodwin's Reader.

### CLASS THIRD.

- †**MATHEMATICS**..... *First Term*.—Geometry of Solids, bounded by right lines; Spherical Surfaces; Spherical Projections; Spherical Trigonometry.  
*Second Term*.—Geometry of Invention; Applications of Algebra to Geometrical Solutions.
- †**ENGLISH LANGUAGE**. *First Term*.—Study of English as a Language—Origin and History; Exercises in Original Composition and Declamation; Rhetoric.  
*Second Term*.—General History; Composition and Declamation continued.
- †**GEODESY**..... *First and Second Terms*.—As in Engineering.
- \***CHEMISTRY**..... *First Term*.—Lectures and Recitations.  
*Second Term*.—Lectures and Recitations in Organic Chemistry, as applied to Industrial Pursuits.

\* Five recitations per week.

† Three recitations per week.

‡ Two recitations per week.



- †LATIN LANGUAGE... *First Term.*—Livy; Latin Exercises.  
*Second Term.*—Horace begun; Allen's Prose Composition.  
 †GREEK LANGUAGE... *First Term.*—Goodwin's Reader, with Grammar and Exercises.  
*Second Term.*—Homer (Boise); Prose Composition (Jones)  
 \*MILITARY..... *First and Second Terms.*—Drill.

CLASS SECOND.

- \*ANCIENT LANGUAGES.. *First Term.*—Latin, Horace; Prosody; Prose Composition (Allen).  
*Second Term.*—Latin, Cicero and Quintillian (Kellogg).  
*First Term.*—Greek, Demosthenes; Popular Orations; Prose Composition (Boise).  
*Second Term.*—Greek; Prose Composition.  
 MODERN LANGUAGES. *First and Second Terms.*—French and German.  
 †POLITICAL PHILOSOPHY.—Logic; History.  
 †ENGLISH LITERATURE. *First Term.*—English Literature; American Literature.  
*Second Term.*—Oratory; Original Speeches; Declamation.  
 \*CHEMISTRY..... *First and Second Terms.*—As in Science.  
 \*MILITARY..... *First and Second Terms.*—Tactics (Upton).

CLASS FIRST.

- †ASTRONOMY..... *First Term.*—Descriptive.  
 †NATURAL HISTORY... *First Term.*—Mineralogy and Paleontology.  
*Second Term.*—Geology and Physical Geography.  
 \*PHILOSOPHY..... *First Term.*—Mental Philosophy; Evidences of Christianity.  
*Second Term.*—Political Economy; Moral Philosophy.  
 \*ENGLISH LANGUAGE. *First Term.*—Criticism and Oratory; Classics.  
*Second Term.*—Original Speeches.  
 \*MILITARY..... *First and Second Terms.*—Tactics and Drill, Artillery and Infantry.

\* Five recitations per week.

† Three recitations per week.

‡ Two recitations per week.

## COURSE IN SCIENCE, FOR FOUR YEARS.

### CLASS FOURTH.

- \***MATHEMATICS**..... *First Term*.—Geometrical Concepts; the Point, the Line, and Plane Surfaces; Algebra, Involution, Logarithms, and use of Tables.  
*Second Term*.—Plane Trigonometry,
- \***ENGLISH LANGUAGE**. *First Term*.—Composition; Reading Prose and Poetry; History.  
*Second Term*.—The same subjects continued; Analysis of Words and Sentences.
- †**MODERN LANGUAGES**. *First and Second Terms*.—As in Engineering.
- †**CHEMISTRY**..... *First and Second Terms*.—Inorganic; Chemical Symbols; Physics; Botany.
- \***MILITARY**..... *First and Second Terms*.—Drill.
- †**DRAWING**..... *First and Second Terms*.—As in Engineering.

### CLASS THIRD.

- †**MATHEMATICS**..... *First Term*.—Geometry of Solids, bounded by right lines; Spherical Surfaces; Spherical Projections; Spherical Trigonometry.  
*Second Term*.—Geometry of Invention; Applications of Algebra to Geometrical Solutions.
- †**ENGLISH LANGUAGE**. *First Term*.—Study of English as a Language—Origin and History; Exercises in Original Composition and Declamation; Rhetoric.  
*Second Term*.—General History; Composition and Declamation continued.
- †**MODERN LANGUAGES**. *First and Second Terms*.—As in Engineering.
- \***CHEMISTRY**..... *First Term*.—Lectures and Recitations (Fowne's new edition).  
*Second Term*.—Lectures and Recitations in Organic Chemistry, as applied to Industrial Pursuits.
- †**GEODESY**..... *First Term*.—Compass and Chain Surveying, Practice; Plane Table Surveying, Theory and Practice; use of Field Instruments.  
*Second Term*.—Trigonometrical and Topographical Surveying and Leveling, Theory and Practice.
- \***MILITARY**..... *First and Second Terms*.—Drill and Tactics.
- †**DRAWING**..... As in Engineering.

\* Five recitations per week.

† Three recitations per week.

‡ Two recitations per week.

CLASS SECOND.

- †MATHEMATICS.....*First Term.*—Analytical Geometry.  
*Second Term.*—Calculus.
- †MECHANICS.....*First Term.*—Mechanics of Solids ; of Fluids ; Practical Problems.  
*Second Term.*—Friction ; Strength of Materials ; Practical Hydraulics ; Practical Pneumatics.
- †CHEMISTRY.....*First Term.*—Experimental ; Laboratory Practice ; Analysis, Qualitative both with the Blow-pipe and in the Humid way ; Quantitative by both the Gravimetric and Volumetric Methods.  
*Second Term.*—General Metallurgy ; Iron Metallurgy ; Mining.
- †POLITICAL PHILOSOPHY.*Second Term.*—Logic.
- †ENGLISH LITERATURE.*First Term.*—English Literature ; American Literature.  
*Second Term.*—Oratory ; Original Speeches ; Declamation.
- \*MILITARY.....*First and Second Terms.*—Tactics and Drill.

CLASS FIRST.

- \*NATURAL HISTORY...*First Term.*—Mineralogy and Paleontology.  
*Second Term.*—Geology and Physical Geography.
- \*PHILOSOPHY.....*First Term.*—Mental Philosophy ; Evidences of Christianity.  
*Second Term.*—Political Economy ; Moral Philosophy.
- \*ENGLISH LANGUAGE..*First Term.*—Criticism and Oratory ; Classics.  
*Second Term.*—Original Speeches.
- \*MILITARY.....*First and Second Terms.*—Tactics and Drill, Artillery and Infantry.

\* Five recitations per week.

† Three recitations per week.

‡ Two recitations per week.

COURSE IN CIVIL ENGINEERING,  
FOR FOUR YEARS.

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CLASS FOURTH.

- \*MATHEMATICS.....*First Term.*—Geometrical Concepts; the Point, the Line, and Plane Surfaces; Algebra; Involution, Logarithms, and use of Tables.  
*Second Term.*—Plane Trigonometry.
- \*ENGLISH LANGUAGE..*First Term.*—Composition; Reading Prose and Poetry; History.  
*Second Term.*—The same subjects continued; Analysis of Words and Sentences.
- †MODERN LANGUAGES..*First and Second Terms.*—French.
- †CHEMISTRY.....*First Term.*—Inorganic; Chemical Symbols; Physics.
- †DRAWING.....*First Term.*—Warren's Plane Problems.  
*Second Term.*—Warren's Drafting Instruments and Operations.
- \*MILITARY.....*First and Second Terms.*—Drill.

CLASS THIRD.

- †MATHEMATICS.....*First Term.*—Geometry of Solids, bounded by right lines; Spherical Surfaces; Spherical Projections; Spherical Trigonometry.  
*Second Term.*—Geometry of Invention; Applications of Algebra to Geometrical Solutions.
- †ENGLISH LANGUAGE..*First Term.*—Study of English as a Language—Origin and History; Exercises in Original Composition and Declamation; Rhetoric.  
*Second Term.*—General History; Composition and Declamation continued.
- †MODERN LANGUAGES..*First and Second Terms.*—German.
- \*CHEMISTRY.....*First Term.*—Lectures and Recitations.  
*Second Term.*—Lectures and Recitations in Organic Chemistry, as applied to Industrial Pursuits.
- NATURAL HISTORY...*First Term.*—Zoology; Habits of Animals; Human and Comparative Anatomy; Physiology and Hygiene.  
*Second Term.*—Physiology of Plants and Animals as illustrated in their Growth, Nutrition and Respiration.

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\* Five recitations per week.

† Three recitations per week.

‡ Two recitations per week.

# ALABAMA AGRICULTURAL AND MECHANICAL COLLEGE.

- †GEODESY..... *First Term.*—Compass and Chain Surveying, Practice ;  
Plane Table Surveying, Theory and Practice ; use of  
Field Instruments.  
*Second Term.*—Theory and Practice ; Trigonometrical and  
Topographical Surveying and Leveling.
- †DRAWING..... *First and Second Terms.*—Topographical Drawing ; Ma-  
chine Drawing.
- \*MILITARY..... *First and Second Terms.*—Drill and Tactics.

## CLASS SECOND.

- †MATHEMATICS..... *First Term.*—Analytical Geometry.  
*Second Term.*Calculus.
- †CHEMISTRY..... *First Term.*—Same as in the Course in Science.
- †MECHANICS..... *Second Term.*—Same as in the Course in Science.
- †DRAWING..... *First and Second Terms.*—Bridge Drawing.  
*Second Term.*—Sketches of Tools, of the Component Parts  
of Machines, and of Bridges and other structures.
- †LANGUAGE..... *First and Second Terms.*—German.
- †GEODESY..... *First Term.*—Hydrograpiical, Topographical, and Town  
Surveying ; Theory and Practice.  
*Second Term.*—Line Surveying ; Common Roads ; Rail-  
roads ; Canals ; Tunnels ; Staking-out for Construc-  
tions.
- †ENGLISH..... *First and Second Terms.*—As in Literature.
- †POLITICAL PHILOSOPHY. *Second Term.*—Logic.
- \*MILITARY..... *First and Second Terms.*—Tactics and Drill.

## CLASS FIRST.

- †MATHEMATICS..... *First Term.*—Calculus.
- †ASTRONOMY..... *First Term.*—Descriptive.
- †NATURAL HISTORY... *First Term.*—Mineralogy and Paleontology.  
*Second Term.*—Geology and Physical Geography.
- \*CIVIL ENGINEERING.. *First and Second Terms.*—Building Materials ; Mortars  
and Cements ; Masonry ; Wood and Metals ; Strength  
of Materials ; Arches ; Framing ; Bridge and Road Mak-  
ing ; Mining.
- \*TOPOGRAPHICAL } *First and Second Terms.*—Plans, Profiles, and Sections of  
DRAWING. } Railroad Surveys.
- \*MILITARY..... *First and Second Terms.*—Tactics and Drill, Artillery and  
Infantry.

\* Five recitations per week.

† Three recitations per week.

‡ Two recitations per week.

## TEXT BOOKS.

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### FIFTH CLASS.

Towne's Arithmetic, Wilson's Algebra, Swinton's Word Analysis, Hart's Composition, Goodrich's Sixth Reader, Payson, Dunton & Scribner's Penmanship, Paterson's Speller and Analyzer.

### FOURTH CLASS.

Towne's Algebra, Olney's Geometry, Olney's Trigonometry, Anderson's History of England, Fowler's English Grammar, \*Schmitz Student's Classical Atlas. *French*—Fasquelle's French Course, Fasquelle's Colloquial Reader, Chrestomathie Francaise, Surenne's Dictionary, Warren's Plane Problems, Warren's Drafting Instrument, Stewart's Elementary Physics, Eliot & Storer's Manual of Chemistry, Gray's School and Field Botany.

### THIRD CLASS.

Olney's Spherical Geometry and Trigonometry, Smith's Topography, Warren's Projections, Davies' Surveying, Bloxam's Chemistry with Lectures, Worman's German Grammar, Worman's German Echo, Schiller's Wilhelm Tell, Adler's German Dictionary, Hart's Composition and Rhetoric, Selections from English Authors.

### SECOND CLASS.

Loomis' Analytical Geometry (new edition), Differential Calculus (new edition), Olmstead's College Philosophy (Snell's), Lockyer's Astronomy, How Crops Grow, How Crops Feed, Caldwell's Agricultural Analysis, Gillespie's Higher Surveying, Smith's Linear Perspective, Henck's Field Book, Craik's English of Shakspeare, History of English Literature, Logic, Coppee.

### FIRST CLASS.

Loomis' Integral Calculus, Olney's University Algebra, Bledsoe's and Comptes' Philosophy of Mathematics, Mahan's Engineering, Mahan's Industrial Drawing, Dana's Mineralogy, Dana's Geology, Maury's Physical Geography, Trench's Study of Word's, Carpenter's English of the Fourteenth Century, Guizot's History of Civilization, Intellectual Science, Wayland's Political Economy, Hickok's Moral Science.

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\*For the rest of Latin and Greek Text Books see Course in Literature.



## Department of Military Science and Tactics.

By the act of Congress for the endowment of Agricultural and Mechanical Colleges, in prescribing the required studies, the words, "*including military tactics*," are used. The act is designed to be faithfully carried out, by imparting to each student, not physically incapacitated to bear arms, practical instruction in the school of the soldier, of the company, and the battalion. The duties of guards, outpost and picket service is practically taught. The College is provided, by the State, with a complete set of breach-loading cadet rifles, swords and accoutrements.

The following uniform has been prescribed for dress, viz: Frock of Cadet gray, one row of College buttons; gray pants and forage cap, trimmings black. A very neat and serviceable dress suit can be obtained here for \$25, and a fatigue suit for \$18—sufficient, with proper care, for one year's service. This is less expensive than the usual clothing. All students are required to wear this uniform at all times during the term.

In attendance upon drills and guard, students lose no time from academic duties. The drills are short, and the military duty involves no hardship. The military drill is a health-giving exercise, and its good effects in the development of the *physique* and improvement of the carriage of the cadet is manifest.

The entire body of students is divided into companies. The officers are selected for proficiency in drill and deportment. Each company is officered by one Captain, one First Lieutenant, one Second Lieutenant, with a proper number of Sergeants and Corporals. The officers and non-commissioned officers are distinguished by appropriate insignia of rank. These appointments are conferred by the Commandant of Cadets as honorary distinctions, and are continuous for the Collegiate year unless forfeited by misconduct.



The cadet officers are regarded at all times as assistants in the enforcement of discipline ; their orders are to be regarded as duly authorized, and to be obeyed accordingly. They are expected to set examples of military deportment and general good conduct to other cadets.

The General Regulations of the United States Army, and the Rules and Regulations enacted for its government, are followed in military details, when applicable to the College, and not conflicting with its regulations.

## SOCIETIES.

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There are two Literary Societies connected with the College, viz: the Wirt, and the Websterian Society. Weekly exercises are held by each Society.

The Wirt Society celebrates its Anniversary with an oration from one of its members, on the 18th February. The Websterian Society celebrates its Anniversary with similar exercises on the 25th February. There is also an oration delivered in the Chapel before the two Societies, by an honorary member selected by themselves, on Tuesday of Commencement Week.

### SOCIETY OF ALUMNI.

The Annual Alumni Oration, by a member of the Society, is delivered in the Chapel Tuesday evening of Commencement week.

## RECORDS AND EXAMINATIONS.

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### SESSION RECORDS.

Daily records of the various exercises of the classes are kept by the officers of instruction in a form adapted to permanent preservation. These are returnable weekly through the

office of the Commandant to the President, and give full information with regard to each student's position, both as respects observed characteristics of general conduct, and the knowledge displayed by him of the current subjects of study. From this record a circular or *monthly* statement is sent to the parent or guardian.

#### SEMI-ANNUAL EXAMINATIONS.

Public examinations of all the classes of the College are held immediately preceding the close of each semi-annual term. These examinations, which are partly oral and in part written, are continued through a period of about *ten days*, and are made to cover the entire field of study for the term. An average of these with sessional standing and deportment, determines the grade of the student.

#### RESULTS OF THE EXAMINATIONS.

Full records of the examinations are made; full credit is also given to each student for his good conduct; and from these data collectively each student's qualifications for being considered *passed* or *deficient* are determined. No change in class membership in passing from the *first* to the *second* term necessarily happens from the results of the first examination. At the close of the *second term* each student is required to be "passed," not only in the various studies of this term, but in all those studies of the previous term for which a record of deficiency had been entered against him, *in order to satisfy the essential requisite for transference from a lower to a higher class*, in passing from the studies of one year to those of the succeeding year. *No student is permitted to be absent from these examinations.*

Examinations for Degrees or Certificates of Proficiency are held at such time as may be selected by the Faculty, usually during the last *four weeks* of the last term, and embrace in their scope the entire subjects of study in the course.

#### MERIT AND DEMERIT.

The daily performance of a student in each branch of study

is marked from zero to 10, according to his recitations; 0 indicating an entire ignorance;  $7\frac{1}{2}$  a proper knowledge of his lesson; and the intermediate numbers a proportionate knowledge.  $7\frac{1}{2}$  and above will be considered as *progress*; *below*, *deficiency*.

To each recorded delinquency a number of from one to ten, proportional to the degree of the offense in a moral and military view, is assigned to express demerit.

If any student receives 150 demerits for the whole or any part of a half-year, or 250 for a greater period, he shall be declared deficient and dismissed.

## GOVERNMENT.

As military science and tactics are required to be taught in this Institution, both by the law of Congress and by act of the State Legislature, the government and discipline will be modeled after that of the best military schools. But military science is not made a leading object of the Course, since it is not the aim of this College to make proficient in arms, but simply to teach to all students the tactics, and even these more as a means of discipline and gymnastic exercise than as preparatory to the profession of the soldier. The government of the College, therefore, is administered by the President, Commandant, and Faculty, in accordance with a Code of Laws and Regulations enacted by the Faculty and published; each student, upon matriculating, being furnished with a copy.

The strictest attention to study, and the most exact punctuality in attendance on recitations, and all other duties, will be made the *condition* of every student's continuance at the College; and any student who without authority absents himself from recitation or any other duty, deserts his class, or refuses to attend when warned, shall be dismissed, or less severely punished, at the discretion of the Faculty.

Any student failing to pay, and refusing or neglecting to

make satisfactory arrangements for the liquidation of his College dues, shall be dismissed.

Permission to attend private parties, or places of public amusement, will not be granted during the term.

No Cadet can be granted a leave of absence more than five times during a term of twenty weeks.

### RELIGIOUS AND MORAL CULTURE.

Religious services are held every morning in the Chapel. The students are required to attend these exercises, and are expected to attend the Church of their choice at least once on Sunday. Opportunities are also offered for attending Bible-classes every Sunday.

By statute of the State, the sale of spirituous liquors and the keeping of gaming-saloons of every kind within five miles of Auburn are forbidden.

### LOCATION.


Auburn, the seat of this College, is immediately on the Western Railroad, the great thoroughfare connecting New Orleans, Mobile, Selma, and Montgomery with Opelika, West Point, Columbus, and Atlanta. Four passenger-trains, besides four freight and accommodation-trains, pass Auburn daily, making close connection with the Montgomery & Eufaula, the Montgomery & Mobile, the South & North, the Memphis & Savannah, and the East Alabama & Cincinnati Railroads; thus rendering the College very accessible from every portion of the State.

### BUILDING.

The College-building is equal to the best in the country. Finished just at the beginning of the war, it is new and in good repair. The recitation-rooms are large and well constructed. The two society halls are very spacious, each capable of accommodating without difficulty one hundred members.

### APPARATUS, CABINET, AND MUSEUM.

The apparatus, both chemical and philosophical, is already sufficient, and additions will be made thereto. The Cabinet of Minerals is very comprehensive, embracing the life-time collections of Professor Darby. The Museum is small, but contains some rare and wonderful specimens. It, too, is receiving an increase. Natural Science in all its branches, receives particular attention, and every facility in the way of experiment and illustration is offered to the student.

 We earnestly request the citizens of the State to forward to the Professor of Mineralogy and Geology any specimens which may be useful in the geological study of Alabama.

By recent act of the Legislature appointing a State Geologist, it is made imperative upon him to furnish to this Institution a full suit of all the minerals in the State—thus giving a prospective increase to our already valuable cabinet, and by which the Geology of Alabama may be fully illustrated.

### INDUSTRIAL MUSEUM.

We have also established an Industrial Museum, for the deposit of Machines, Implements, Models, or Plans of same, or of Bridges, &c., which may be entrusted to our care, either for examination or exhibition; and we earnestly request the citizens of all portions of the country to aid us in building up this newly established department.



## EXPENSES.

|   |                  |
|---|------------------|
| Tuition Fee, for term from October 1 to July 8, ( <i>in advance each session</i> )..... | \$50 00          |
| Surgeon's Fee ( <i>on entrance</i> ).....   | 5 00             |
| Board per month (extra fuel, lights, washing) ..  | \$13 00 to 18 00 |
| For clothing ( <i>in advance</i> ).....   | 35 00            |

Students are required to pay for all damages done to the College or any of its property, as is prescribed in the Rules and Regulations of the College.

### BOARDING.

Hereafter students, after selecting their boarding-houses, with the approval of the Faculty, will not be permitted to make changes without *first* obtaining permission from the Faculty.

Applications will only be granted on good and sufficient reasons, or at the *written* request of the parent or guardian.

The Faculty will feel authorized to remove students from boarding-houses when it becomes manifest that they are failing in their duties from improper associations, or for any other reason demanding such removal.

Parents and guardians are advised to send all money for payment of tuition and board to the Treasurer of the College, with instructions for its appropriation.

### STUDENTS' FURNISHING.

*Drawing-Instruments.*—The instruments used at the College are the Swiss, which are preferred both for their general excellence and moderate cost. The instruments, with the materials for geometrical and topographical drawing, cost from fifteen to thirty-five dollars. The student is advised to defer his purchases of drawing-instruments and materials until he comes to the College, when he will have the advantage of procuring them under the direction of the Professor of Drawing.

## CALENDAR FOR 1874-75.

|                                  |                             |
|----------------------------------|-----------------------------|
| COMMENCEMENT SERMON.....         | Sunday, July 4, 11 A. M.    |
| AGRICULTURAL ADDRESS.....        | Monday, July 5, 11 A. M.    |
| DECLAMATION.....                 | Monday, July 5, 8 P. M.     |
| ADDRESS BEFORE THE SOCIETIES.... | Tuesday, July 6, 10 A. M.   |
| JUNIOR EXHIBITION.....           | Tuesday, July 6, 11 A. M.   |
| MEETING OF BOARD OF DIRECTORS..  | Tuesday, July 6, 1 P. M.    |
| REVIEW OF CORPS OF CADETS.....   | Tuesday, July 6, 4 P. M.    |
| ALUMNI ORATION.....              | Tuesday, July 6, 8 P. M.    |
| COMMENCEMENT DAY.....            | Wednesday, July 7, 10 A. M. |

### *SESSION 1874-75.*

|                         |                                 |
|-------------------------|---------------------------------|
| FIRST TERM BEGINS.....  | Wednesday, 7th October, 1874.   |
| SECOND TERM BEGINS..... | Wednesday, 10th February, 1875. |